

SCIENCE

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EDITORIAL

Science, Technology, and Congress

Congress will be more active in formulating goals for U.S. science and technology (S&T). Impetus includes budget stringency, end of the Cold War, global economic competition, and a demand for quick pay-offs from research. President Clinton has sent a budget to Congress, but under the Constitution, Congress has sole power of the purse.

In these circumstances, a report of the Carnegie Commission released on 14 February 1994 is relevant.* Most of the document is devoted to comments on congressional organization and procedures impacting science and technology along with recommendations for needed reforms. In addition, the commission proposed creation of a nongovernmental National Forum on Science and Technology Goals that would provide high-level, useful advice to the government. The report was prepared by a distinguished committee chaired by John Brademas, who at one time was majority whip in the House of Representatives. A bipartisan advisory council to the committee included a large number of senators and representatives.

The structure of Congress militates against consideration and development of coherent science and technology policies. The existing authorizing and appropriations jurisdictions for science and technology are not only cumbersome but, for authorizing committees, also vary substantially between the House and the Senate. For example, the House Committee on Science, Space, and Technology has no Senate counterpart and must deal chiefly with four Senate committees. Moreover, responsibility for funding science and technology activities is divided among nine appropriations subcommittees....

The current structure of budget committees, authorizing committees, and appropriations committees has led to overlap of responsibility and authority, thereby delaying congressional action....

Congress should modify appropriations committee jurisdictions to reduce the multiplicity of appropriations subcommittees responsible for funding science and technology activities....

In the report the commission mentions some of the factors that drive Congress to focus on the crisis of the week rather than on major matters of future national importance. Accordingly, considerable space in the report is devoted to policies for the longer term:

In order to direct and use its research capabilities most effectively the United States needs a long-range vision that clearly articulates goals for science and technology....

Members of Congress, like other policymakers and policy analysts, often underestimate the degree to which the S&T enterprise serves the nation. The lack of methods for assessing past accomplishments, charting progress, and determining future directions of the enterprise contributes to this lack of understanding....

Congress should help articulate long-term goals for S&T programs, foster a robust and resilient science and technology base as a resource for future generations....

Another recommendation stated that Congress should encourage the S&T community to develop better mechanisms to consider long-range national goals, to suggest means for better use of S&T in helping achieve national goals, and to help set priorities within and among disciplines. The report then stated: "Scientists themselves need to take more responsibility for helping to set research priorities within and among disciplines...." Within the various disciplines the peer-review process is effective. However, were scientists to attempt to set priorities among fields the process would lead mainly to enmity and the result if any probably would not be respected by other scientists or by Congress. In contrast, many scientists and engineers would strive cooperatively toward achieving a major national goal.

The proposed National Forum on Science and Technology Goals, which was described in an earlier Carnegie Commission report, has prospects for being effective in facilitating achievement of national goals: "The National Forum would bring together individuals from academia, nongovernmental organizations, industry, and the public to examine how science and technology could be used to promote societal goals in such policy areas as agriculture, economic performance, education, energy, environmental protection, health, telecommunications, and transportation. The forum would be established as a private government-chartered entity in order to ensure legitimacy as well as independence from partisan influence."

Philip H. Abelson

* *Science, Technology, and Congress Organizational and Procedural Reforms* (Carnegie Commission, New York, 1994).